

REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 24-47 are pending in the present application, Claims 24 and 47 having been amended by way of the present amendment.

Support for the amendments to Claims 24 and 47 are found in the specification, for example at page 24, lines 23-30. Therefore no new matter is added.

In the outstanding Office Action, Claims 24-47 were rejected under 35 U.S.C. §103(a) as unpatentable over Zinky et al. (U.S. Patent No. 6,480,879, hereinafter Zinky) in view of Neureiter et al. (“The BRAIN Quality of Service Architecture for Adaptable Services with Mobility Support”, herein Neureiter).

In reply, Claim 24, for example, is directed to a program that configures an application programming interface as a data model describing quality of service contracts and quality of service adaptation paths as specified by quality of service aware mobile multimedia applications using the application programming interface. This configuration is established so as to manage quality of service and mobility-aware for managing network connections with other applications. The quality of service adaptation path defines an adaptation policy identifying quality of service specifications and allows quality of service changes.

Middleware is adapted to negotiate with communication peers to generate adaptation paths by having a specific adaptation path proposed by an initiator of communication peers being validated by each of the other communication peers in accordance with a corresponding adaptation policy, and having each of the other communication peers respond with a counter offer that is limited to a definition of a subset of the specific adaptation path proposed by the initiator.

With respect to the rejection of Claims 24 and 47 under 35 U.S.C. §112, second paragraph, as indefinite, Claims 24 and 47 are amended to more clearly recite the claimed invention. Specifically, Claims 24 and 47 are amended to recite "...by each of the other communication peers in accordance with a corresponding adaptation policy." Accordingly, Applicants respectfully request that the rejection of Claims 24 and 47 under 35 U.S.C. §112, second paragraph, be withdrawn.

Turning now to the rejection of Claims 24-47 under §103(a) as unpatentable over Zinky and Neureiter, that rejection is traversed.

Claim 24 recites, in part,

wherein said middleware is adapted  
to negotiate with communication peers to generate  
adaptation paths by having a specific adaptation path proposed  
by an initiator of communication peers being validated by each  
of the other communication peers in accordance with a  
corresponding adaptation policy, and having each of said other  
communication peers respond with a counter offer that is  
limited to a definition of a subset of the specific adaptation  
path proposed by said initiator,  
to measure the actual quality-of-service, and  
to solve any quality-of-service problem by deciding  
which of the possible adaptations to perform.

Claim 47 recites similar features with respect to the middleware feature recited in the claim.

The outstanding action admits on page 4, in item 10 that "Zinky does not explicitly teach where the middleware is adapted to negotiate with communication peers." However, the outstanding Action relies on Neureiter as curing this deficiency in Zinky.

Neureiter describes a QoS Broker that governs all the QoS mechanisms on behalf of applicants on the terminal device. During establishment of a connection, the QoS Broker ensures that enough resources are available to accommodate a given application's requirements both locally and remotely. During a connection lifetime, the QoS Broker monitors the connection quality and reacts to any degraded conditions by rearranging

multimedia component chains and/or performing fine QoS parameter tuning, which may require re-negotiations with peer-Brokers.

However, the Neureiter reference does not describe or suggest how agreement is obtained. In contrast, the claimed invention specifically recites how an agreement is obtained. Specifically, the claimed invention distinguishes “an initiator” as being one of a plurality of communication peers. Additionally, the initiator proposes a specific adaptation path, which is validated by each one of the other communication peers against adaptation policies specific to that one of the other communication peers. Each one of the other communication peers responds with a counter offer that is limited to a definition of a subset of the specific adaptation path proposed by the initiator.

In addition, the scheme recited in the present claims provides an advantage that an adaptation path is obtained quickly with little communication complexity. For example, the claimed invention describes a short three step process including: (1) the initiator sends a specific adaptation path to other communication peers, (2) the other communication peers send counter offers to the initiator and (3) the initiator sends a final adaptation path to the other communication peers.

In other words, Neureiter merely describes that a QoS broker governs mobility mechanisms on behalf of the applications. In contrast, Claim 24 recites that “said middleware is adapted to negotiate with communication peers to generate adaptation paths **by having a specific adaptation path proposed by an initiator of communication peers being validated by each of the other communication peers in accordance with a corresponding adaptation policy, and having each of said other communication peers respond with a counter offer that is limited to a definition of a subset of the specific adaptation path proposed by said initiator,**” these features are not described in Neureiter.

Thus, no matter how Zinky and Neureiter are combined, the combination does not teach or suggest all of the elements of Claim 24 and therefore does not render obvious the invention of Claim 24.

Accordingly, Applicants respectfully submit that Claim 24, Claim 47 and claims depending therefrom patently distinguish over Zinky and Neureiter considered individually or in any proper combination.

Consequently, in view of the present amendment and in light of the foregoing comments, it is respectfully submitted that the invention defined by Claims 24-47, as amended, is patentably distinguishing over the prior art. The present application is therefore believed to be in condition for formal allowance and an early and favorable reconsideration of this application is therefore requested.

Respectfully submitted,

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